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*Admitted only in Maryland
*Admitted only in Virginia
*Practice limited to
Federal Agencies

July 26, 2005

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Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Art Unit 2682

Attn: Mail Stop Amendment

Re: U.S. Utility Patent Application
Appl. No. 10/086,367; Filed: March 4, 2002
For: **Method and System for Frequency Up-Conversion**
Inventors: **SORRELLS et al.**
Our Ref: 1744.0020007

Sir:

Transmitted herewith for appropriate action are the following documents:

1. Second Supplemental Information Disclosure Statement;
2. A listing of the cited documents on form PTO-1449 (4 pages);
3. A copy of the cited document (AQ59); and
4. One (1) return postcard.

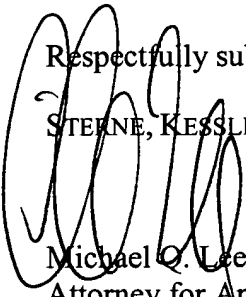
It is respectfully requested that the attached postcard be stamped with the date of filing of these documents, and that it be returned to our courier. In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

Commissioner for Patents
July 26, 2005
Page 2

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Michael Q. Lee
Attorney for Applicants
Registration No. 35,239

ML:apg
Enclosures

425537_1.DOC



THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Sorrells *et al.*

Appl. No.: 10/086,367

Filed: March 4, 2002

For: **Method and System for Frequency
Up-Conversion**

Confirmation No.: 3679

Art Unit: 2682

Examiner: Pan, Y.

Atty. Docket: 1744.0020007

Second Supplemental Information Disclosure Statement

Mail Stop Amendment

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98. The numbering on this Second Supplemental Information Disclosure Statement is a continuation of the numbering in Applicants' Supplemental Information Disclosure Statement filed on December 29, 2004 in connection with the above-captioned application.

Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

Applicants provide the following comments regarding the documents:

Document AQ59 was cited in a Notice of Allowance in related U.S. Patent Application No. 10/290,323, filed November 8, 2002, entitled "Method and Apparatus for DC Offset Removal in a Radio Frequency Communication Channel," directed to related subject matter.

Document AH64 was cited in a Notice of Allowance in related U.S. Patent Application No. 10/197,441, filed July 18, 2002, entitled "Method and System for Frequency Up-Conversion With a Variety of Transmitter Configurations," directed to related subject matter.

Document AI64 was cited in an Office Action in related U.S. Patent Application No. 10/086,250, filed March 4, 2002, entitled "Applications of Universal Frequency Translation," directed to related subject matter.

Document AA65 was cited in an Office Action in related U.S. Patent Application No. 09/590,955, filed June 9, 2000, entitled "Phase Shifting Applications of Universal Frequency Translation," directed to related subject matter. Also cited in said Office Action was U.S. Patent No. 5,982,315, which has already been cited in the present application.

Documents AB65, AH65, AH66, and AI66 are co-owned patents which are directed to related subject matter.

Document AC65 was cited in an Office Action in related U.S. Patent Application No. 09/569,045, filed May 10, 2000, entitled "Methods and Apparatuses Relating to a

Universal Platform Module and Enabled by Universal Frequency Translation Technology," directed to related subject matter.

Documents AD65-AG65 were cited in a Notice of Allowance in related U.S. Patent Application No. 09/770,675, filed January 29, 2001, entitled "Wireless and Wired Cable Modem Applications of Universal Frequency Translation Technology," directed to related subject matter.

Documents AI65 and AA66-AG66 were cited in an Office Action in related U.S. Patent Application No. 09/855,851, filed May 16, 2001, entitled "Apparatus, System, and Method for Down-Converting and Up-Converting Electromagnetic Signals," directed to related subject matter. Also cited in said Office Action were U.S. Patent Nos. 5,465,415, 6,049,706, 6,061,551, 6,580,902, 6,687,493, and 6,813,485, all of which have already been cited in the present application.

Document AA67 was cited in an Office Action in related U.S. Patent Application No. 09/550,642, filed April 14, 2000, entitled "Method And System For Down-Converting An Electromagnetic Signal, And Transforms For Same," directed to related subject matter. Also cited in said Office Action were U.S. Pat. Nos. 5,678,226 and 6,094,084, which have already been cited in the present application.

Document AB67 was cited in an Office Action in related U.S. Patent Application No. 09/476,092, filed January 3, 2000, entitled "Analog Zero If Fm Decoder And Embodiments Thereof, Such As The Family Radio Service," directed to related subject matter. Also cited in said Office Action were U.S. Pat. Nos. 5,600,680 and 5,606,731, which have already been cited in the present application.

Documents AC67-AF67 were cited in an Office Action in related U.S. Patent Application No. 09/567,977, filed May 10, 2000, entitled "Optical Down-Converter Using Universal Frequency Translation Technology," directed to related subject matter. Also cited in said Office Action was Stewart, R.W. and Pfann, E., "Oversampling and sigma-delta strategies for data conversion," *Electronics & Communication Engineering Journal*, IEEE, pp. 37-47 (February 1998), which has already been cited in the present application.

Documents AG67 and AH67 were cited in a Notice of Allowance in related U.S. Patent Application No. 09/632,855, filed August 4, 2000, entitled "Wireless Local Area Network (WLAN) Using Universal Frequency Translation Technology Including Multi-Phase Embodiments," directed to related subject matter.

Document AI67 was cited in an Office Action in related U.S. Patent Application No. 09/796,824, filed March 2, 2001, entitled "Phased Array Antenna Applications of Universal Frequency Translation," directed to related subject matter. Also cited in said Office Action was U.S. Patent No. 5,742,189, which has already been cited in the present application.

This statement should not be construed as a representation that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

Applicants have checked the appropriate boxes below.

- ☐ 1. Statement under 37 C.F.R. 1.704(d). Each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign

patent office in a counterpart application and this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this information disclosure statement.

- ☒ 2. Filing under 37 C.F.R. § 1.97(b). This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits. No statement or fee is required.
- ☐ 3. Filing under 37 C.F.R. § 1.97(c). This Information Disclosure Statement is being filed more than three months after the U.S. filing date AND after the mailing date of the first Office Action on the merits, but before the mailing date of a Final Rejection, or Notice of Allowance, or an action that otherwise closes prosecution in the application.
- ☐ a. Statement under 37 C.F.R. § 1.97(e)(1). I hereby state that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(1).
- ☐ b. Statement under 37 C.F.R. § 1.97(e)(2). I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R.

§ 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).

- ☐ c. Attached is our PTO-2038 Credit Card Payment Form in the amount of _____ in payment of the fee under 37 C.F.R. § 1.17(p).
- ☐ 4. Filing under 37 C.F.R. § 1.97(d) This Information Disclosure Statement is being filed more than three months after the U.S. filing date and after the mailing date of a Final Rejection or Notice of Allowance, but before payment of the Issue Fee. Enclosed find our PTO-2038 Credit Card Payment Form in the amount of \$_____ in payment of the fee under 37 C.F.R. § 1.17(p); in addition:
- ☐ a. Statement under 37 C.F.R. § 1.97(e)(1). I hereby state that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(1).
- ☐ b. Statement under 37 C.F.R. § 1.97(e)(2). I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).

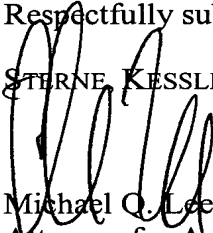
- ☐ 5. The document(s) was/were cited in a search report by a foreign patent office in a counterpart foreign application. Submission of an English language version of the search report that indicates the degree of relevance found by the foreign office is provided in satisfaction of the requirement for a concise explanation of relevance. 1138 OG 37, 38.
- ☐ 6. A concise explanation of the relevance of the non-English language document(s) appears below in accordance with 37 C.F.R. § 1.98(a)(3).
- ☒ 7. A copy of document AQ59 is enclosed. However, in accordance with 37 C.F.R. § 1.98(a)(2), copies of the U.S. patents and patent application publications cited on the attached Form PTO-1449 are not enclosed.
- ☐ 8. Copies of the documents were cited by or submitted to the Office in an IDS that complies with 37 C.F.R. § 1.98(a)-(c) in Application No. _____, filed _____, which is relied upon for an earlier filing date under 35 U.S.C. § 120. Thus, copies of these documents are not attached. 37 C.F.R. § 1.98(d).
- ☒ 9. It is expected that the examiner will review the prosecution and cited art in the parent application no. 09/379,497, filed August 23, 1999 (now U.S. Pat. No. 6,353,735), in accordance with MPEP 2001.06(b), and indicate in the next communication from the office that the art cited in the earlier prosecution histories have been reviewed in connection with the present application.

It is respectfully requested that the Examiner initial and return a copy of the enclosed Form PTO-1449, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

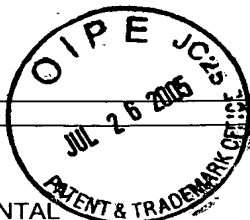

Michael Q. Lee
Attorney for Applicants
Registration No. 35,239

Date:

July 26, 2005

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Washington, D.C. 20005-3934
(202) 371-2600

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FORM PTO-1449

**SECOND SUPPLEMENTAL
INFORMATION DISCLOSURE STATEMENT**ATTY. DOCKET NO.
1744.0020007APPLICATION NO.
10/086,367FIRST NAME INVENTOR
David F. SorrellsFILING DATE
March 4, 2002ART UNIT
2682**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL	DOC. REF.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH64	5,982,329	11/1999	Pittman <i>et al.</i>			
	AI64	6,208,636 B1	03/2001	Tawil <i>et al.</i>			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOC. REF.	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AJ						Yes No
	AK						Yes No
	AL						Yes No
	AM						Yes No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

EXAMINER INITIAL	DOC. REF.	CITATION
	AN	
	AO	
	AP	
	AQ59	Hellwarth, G.A. and Jones, G.D, "Automatic Conditioning of Speech Signals," <i>IEEE Transactions on Audio and Electroacoustics</i> , Vol. AU-16, No. 2, pp. 169-179 (June 1968).
	AR	

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-219

**SECOND SUPPLEMENTAL
INFORMATION DISCLOSURE STATEMENT**ATTY. DOCKET NO.
1744.0020007APPLICATION NO.
10/086,367FIRST NAME INVENTOR
David F. SorrellsFILING DATE
March 4, 2002ART UNIT
2682**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL	DOC. REF.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA65	3,614,630	10/1971	Rorden			
	AB65	6,836,650 B2	12/2004	Sorrells <i>et al.</i>			
	AC65	5,844,868	12/1998	Takahashi <i>et al.</i>			
	AD65	6,385,439 B1	05/2002	Hellberg			
	AE65	6,741,139 B2	05/2004	Pleasant <i>et al.</i>			
	AF65	6,823,178 B2	11/2004	Pleasant <i>et al.</i>			
	AG65	6,850,742 B2	02/2005	Fayyaz			
	AH65	6,853,690 B1	02/2005	Sorrells <i>et al.</i>			
	AI65	4,789,837	12/1988	Ridgers			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOC. REF.	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AJ						Yes No
	AK						Yes No
	AL						Yes No
	AM						Yes No

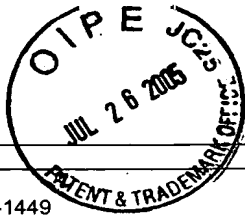
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

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FORM PTO-1449

ATTY. DOCKET NO.
1744.0020007APPLICATION NO.
10/086,367**SECOND SUPPLEMENTAL
INFORMATION DISCLOSURE STATEMENT**FIRST NAME INVENTOR
David F. SorrellsFILING DATE
March 4, 2002ART UNIT
2682**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL	DOC. REF.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA66	5,634,207	05/1997	Yamaji <i>et al.</i>			
	AB66	5,642,071	06/1997	Sevenhans <i>et al.</i>			
	AC66	6,211,718 B1	04/2001	Souetinov			
	AD66	6,212,369 B1	04/2001	Avasarala			
	AE66	6,308,058 B1	10/2001	Souetinov <i>et al.</i>			
	AF66	6,633,194 B2	10/2003	Arnborg <i>et al.</i>			
	AG66	2001/0036818 A1	11/2001	Dobrovolny			
	AH66	6,873,836 B1	03/2005	Sorrells <i>et al.</i>			
	AI66	6,879,817 B1	04/2005	Sorrells <i>et al.</i>			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOC. REF.	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
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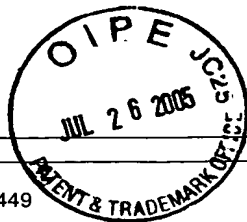
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10/086,367FIRST NAME INVENTOR
David F. SorrellsFILING DATE
March 4, 2002ART UNIT
2682**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL	DOC. REF.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA67	6,057,714	05/2000	Andrys <i>et al.</i>			
	AB67	2003/0081781 A1	05/2003	Jensen <i>et al.</i>			
	AC67	5,994,689	11/1999	Charrier			
	AD67	6,512,544 B1	01/2003	Merrill <i>et al.</i>			
	AE67	6,628,328 B1	09/2003	Yokouchi <i>et al.</i>			
	AF67	6,801,253 B1	10/2004	Yonemoto <i>et al.</i>			
	AG67	3,737,778	06/1973	Van Gerwen <i>et al.</i>			
	AH67	4,286,283	08/1981	Clemens			
	AI67	4,241,451	12/1980	Maixner <i>et al.</i>			

FOREIGN PATENT DOCUMENTS

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